

cc
A.C. 10/10

providing a base frame of a bed;

providing a caster having a sleeve including a portion having a substantially rectangular cross-sectional shape, a lumen having a substantially rectangular cross-sectional shape, and a spindle having a portion which has a substantially rectangular cross-sectional shape received in the lumen and a portion which has a substantially round cross-sectional shape;

placing a first side wall of the mounting tube against the base frame;

welding the mounting tube to the base frame with first and second welds located at opposite ends of the first side wall; and

installing the sleeve of the caster into the interior opening of the mounting tube.

REMARKS

Reconsideration and reversal of the rejections expressed in the Office Action dated May 22, 2002 is respectfully requested in light of the following.

The Examiner is thanked for all of the courtesies extended to the undersigned during the personal interview of August 23, 2002.

Claims 1-20 are solicited, wherein claims 1, 7, 11, 12, and 16 are presented in independent form. Claims 1, 7, 11, 12, 15, and 16 have been amended. More particularly, claims 1, 11, and 16 have been amended to better define and further distinguish the present invention over the prior art. Claims 7 and 12 have been rewritten in independent form while claim 15 has been amended to correct an informality. As such, the amendments to claims 7, 12, and 15 do not narrow the scope of protection originally solicited.

In the aforementioned Office Action, the Examiner rejected claims 11-20 under 35 U.S.C. § 112 as being "indefinite for failing to particularly point out and distinctly claim subject matter which the applicant regards as the invention." In response, claims 11 and 16

have been amended to positively recite the combination of the device and the base frame. As such, it is respectfully submitted that the solicited claims comply with the requirements of 35 U.S.C. § 112.

Claims 1, 3, 5, 6, and 9 were rejected by the Examiner under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,738,539 to Schultz (hereinafter "Schultz '539").

Schultz '539 relates to a Caster Bracket. More particularly, Schultz '539 discloses a bracket 28 for mounting a caster to a dolly 10 that includes four sides 12, 14, 16, and 18. A top member 20 extends between and is connected to opposite sides 12, 14, 16, and 18 of the dolly 10 for adding rigidity to the structure and to support an article of furniture, such as a television set 21. Each of the corners of the dolly 10 is reinforced by a block-like member 22 that is rigidly secured to adjacent sides 12, 14, 16, and 18. The caster includes a wheel 30 rotatably mounted on a bifurcated member 32 by a pin 34. A stem 36 is secured to and extends from the bifurcated member 32 for insertion into a suitable socket on the bracket 28. Bracket 28 includes a mounting end portion that includes sections 52 and 54 which extend respectively from arm portions 48 and 50. The sections 52 and 54 are secured as by spot welds 55 to opposite sides 60 and 62 of a V-shaped metal insert. The sides 60 and 62 of the metal insert terminate in intumed flanges 64 and 66. These flanges 64 and 66 are adapted to slide into the recesses 24 and 26 in the member 22 for engagement with surfaces 68 and 70, whereby opposed surfaces on the bracket provided by the sides 60 and 62 and the flanges 64 and 66 cooperate with opposed surfaces on the member 22 for securely connecting the bracket to the member 22, and hence the dolly 10.

Amended claim 1 recites a patient support apparatus comprising a base frame, a patient support coupled to the base frame, and a plurality of casters each having a sleeve. Claim 1 now further recites a plurality of caster mounting tubes, each mounting tube including a plurality of external side walls each having an interior surface and an exterior

surface, the interior surface being configured to receive the sleeve of a caster, the plurality of external side walls including a generally planar first external side wall. Amended claim 1 further recites that the exterior surface of the first external side wall abuts the base frame, and the mounting tube is connected to the base frame by welds located adjacent the first external side wall.

Quite simply, the Schultz patent does not support the Examiner's rejection of claims 1, 3, 5, 6, and 9 under 35 U.S.C. § 102(b). "[A]nticipation requires that a single prior art reference disclose every limitation in a patent claim." General Electric Co. v. Nintendo Co., 50 USPQ2d 1910, 1915 (Fed. Cir. 1999) (citing PPG Indus., Inc. v. Guardian Indus. Corp., 37 USPQ2d 1618, 1624 (Fed. Cir. 1996)). ("To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter.") In General Electric, the Federal Circuit overturned a district court finding of invalidity by finding that (1) the patent-in-suit "claims a switch that allows a television to receive audio and video signals from the antenna, and then to switch automatically to receive a signal from the video record player when the video record player is turned on by the user. [And] (2) the switch taught in the [prior art] does not specifically disclose sending audio and video signals to the television when the video record player is turned on, much less doing so automatically." General Electric, 50 USPQ2d at 1915.

Similarly, in the present application, the Schultz '539 patent does not disclose all of the elements recited in claim 1. More particularly, claim 1 clearly recites a "patient support coupled to the base frame." There is no disclosure, much less any teaching or suggestion, in Schultz '539 of providing a patient support. For this reason alone, the rejection under 35 U.S.C. § 102 is improper.

Further, amended-claim 1 recites a plurality of caster mounting tubes, each mounting tube including a plurality of external side walls, each having an interior surface and an

exterior surface, the interior surface being configured to receive the sleeve of a caster, the plurality of external side walls including a generally planar first external side wall, the exterior surface of the first external side wall abutting the base frame. This limitation is clearly missing from the Schultz '539 patent. More particularly, Schultz '539 does not disclose nor suggest an exterior surface of an external side wall abutting the base frame wherein the external side wall forms part of the mounting tube and includes an interior surface configured to receive the sleeve of a caster. For this additional reason, it is respectfully submitted that claim 1 is properly allowable.

In addition, Schultz '539 fails to disclose "the mounting tube being connected to the base frame by welds located adjacent the first external side wall" as clearly recited in amended claim 1. More particularly, there is no disclosure, much less any teaching or suggestion, in Schultz '539 of providing the first external side wall as recited in amended claim 1 connected to the base frame by welds located adjacent thereto.

For the foregoing reasons, it is respectfully submitted that claim 1, and the claims dependent therefrom, are in condition for allowance.

Claims 4 and 10 have been rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over Schultz '539. Both claims 4 and 10 depend ultimately from properly allowable independent claim 1. As such, it is respectfully submitted that claims 4 and 10 are in condition for allowance.

Additionally, claims 4 and 10 are believed to contain independently patentable features. More particularly, claim 4 clearly recites that the first external side wall abutting the base frame is formed to include a hole, and the base frame is formed to include a hole, wherein the hole in the base frame is aligned with the hole in the first external side wall, and both holes are located between the first and second welds located at opposite ends of the first external side wall. The applicant respectfully disagrees with the Examiner's statement that

the applicant “has not disclosed that the particular aligned holes solve any stated problem or is for any particular purpose.” As clearly stated in the specification of the application:

Shaft access holes 96 are drilled or otherwise formed through outside wall 80 and inside wall 82 of mounting tube and outside surface 66 and inside surface 64 of side frame member 32 so that hex shaft 54 used to actuate the anti-swivel mechanism 50 and/or the brake mechanism 48 of caster device 44 may extend from the exterior of the mounting tube 38 through the interior of the side frame member 32.

(Pg. 10, lns. 21-25).

As such, the aligned holes recited in claim 4 clearly serve a particular purpose. Moreover, there is simply no teaching or suggestion in Schultz ‘539 to provide such aligned holes. Schultz ‘539 provides no hint or suggestion providing a shaft extending between a mounting tube and an interior of a side frame member which would necessitate the formation of such aligned holes. As such, it is respectfully submitted that claim 4 is further allowable over the prior art.

Claim 10 is also believed to be further allowable over the Schultz ‘539 patent. Claim 10 recites that the sleeve of each caster has a rectangular cross-sectional shape. Schultz ‘539 simply does not provide any teaching or suggestion of providing such a rectangular cross-sectional shape to the sleeve of a caster. While apparently acknowledging that the Schultz ‘539 fails to disclose the sleeve of a caster having a rectangular cross-sectional shape, the Examiner further states that “It would have been further obvious to one having ordinary skill in the art at the time the invention was made to utilize a rectangular cross-sectional shape, since it has been held to be within the general skill of a worker in the art to make a change in form or shape on the basis of its suitability for the intended use as a matter of obvious design choice. In re Dailey, 149 USPQ 47 (CCPA 1976).”

The Patent and Trademark Office can satisfy its burden of establishing obviousness “only by showing some *objective* teaching in the prior art or that knowledge generally

available to one of ordinary skill in the art would lead an individual to combine the relevant teachings of the references.” In re Fine, 1837 F.2d 1071, 1073, 5 USPQ2d 1596 (Fed. Cir. 1988) (emphasis added) (citations omitted). The Federal Circuit in In re Fine stated that a “bald assertion” that substituting an element in a prior art reference would have been within the ordinary skill in the art is insufficient to support a finding of obviousness. Id. at 1074.

The Examiner has failed to satisfy the Patent and Trademark Office burden of establishing obviousness. More particularly, the Examiner fails to show any objective teaching that would suggest modifying Schultz ‘539 in the manner suggested. The prior art simply does not teach or suggest all of the claim limitations recited in claim 1.

It is clear that “deficiencies of the cited reference cannot be remedied by ... general conclusions about what is ‘basic knowledge’ or ‘common sense’.” Citing In re Zurko, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). As stated recently by the Federal Circuit, “[t]his factual question of motivation is material to patentability, and could not be resolved on subjective beliefs and unknown authority.” In re Lee, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002) (quoting W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312 (Fed. Cir. 1983)). More particularly, in In re Lee, the court found the Examiner’s conclusory statements that “the demonstration mode is just a programmable feature which can be used on many different device[s] for providing automatic introduction by adding the proper programming software” and that “another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial” did not adequately address the issue of motivation to combine. Id.

Similarly in the present case, the Examiner’s conclusory statement that “it would have been further obvious ... to utilize a rectangular cross-sectional shape,” as “a matter of obvious design choice” does not satisfy the Patent and Trademark Office burden as clearly defined by the Federal Circuit.

In light of the failure of the Schultz '539 patent to clearly disclose, much less provide any hint or suggestion of providing, the elements clearly recited by claims 4 and 10, it is respectfully submitted that these claims are further allowable over the prior art.

Claims 1, 2, and 8 have been rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,330,064 to Hall (hereinafter "Hall") in view of U.S. Patent No. 3,452,386 to Carlson (hereinafter "Carlson").

Hall relates to a Support System for a Holding Rack. More particularly, Hall discloses a holding rack 20 including a frame 24 having a first frame member 28 and a second frame member 32 joined to first frame member 28 at a corner 36. An upright 40 is located adjacent corner 36. An exterior support member 44 is disposed between upright 40 and outer perimeter of frame 24. A conventional caster 50 is positioned below and is rotatably secured relative to upright 40 and relative to exterior support member 44 by means of an extension 54.

Carlson relates to a Caster Socket Assembly. More particularly, Carlson discloses a ball bearing caster 11 mounted in a caster socket 12. The caster socket 12 is secured to an open end of a leg of a chair base by welding 13.

Initially, claim 1 clearly requires "a patient support coupled to the base frame". Neither Hall nor Carlson provide any hint or suggestion of a patient support as required by claim 1. As such, for this reason alone, claim 1 is properly allowable over the cited references.

Furthermore, claim 1 requires a mounting tube including a plurality of external side walls each having an interior surface and an exterior surface, the interior surface being configured to receive the sleeve of a caster, the plurality of external side walls including a generally planar first external side wall, and the exterior surface of the first external side wall abutting the base frame. Hall discloses an upright 40 with an exterior support member 44

disposed between upright 40 and frame 44. A bolt 72 or other fastener having a shaft detachably connects exterior support member 44, upright 40, and extension 54. As acknowledged by the Examiner, "Carlson is relied upon merely to show that it is known in the art to provide welds 13."

Hall and Carlson, either alone or in combination, fail to disclose a mounting tube including a plurality of external side walls each having an interior surface configured to receive the sleeve of a caster, in combination with an exterior surface of a generally planar first external side wall abutting the base frame. As such, for this additional reason, it is respectfully submitted that claim 1 is in proper condition for allowance.

• Additionally, claim 1 recites that the mounting tube is connected to the base frame by welds located adjacent the first external side wall. There is no hint or suggestion in either Hall or Carlson of providing welds located adjacent the first external side wall as recited in claim 1. Therefore, for this additional reason, it is respectfully submitted that claim 1 is in condition for allowance over Hall and Carlson.

In light of the failure of the prior art references to clearly disclose, much less provide any hint or suggestion of, the elements now clearly recited in amended claim 1, it is respectfully submitted that claim 1, and the claims dependent therefrom, are in proper condition for allowance.

Claims 11, 13, 14, and 15 have been rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 4,788,741 to Hilborn (hereinafter "Hilborn") in view of Carlson. Hilborn relates to a Keyed Mounting Assembly for Lockable Swivel Caster. More particularly, Hilborn discloses a caster 10 and a socket 12 to be mounted on the bottom of a hollow leg 14 of a furniture piece. Caster 10 has a wheel 16 which rotates about a horizontal axis and a generally cylindrical stem 18 which extends along a generally vertical axis 20 which extends centrally through the socket 12 and the leg 14.

Socket 12 has a body 24 and an outer surface 26 which is made to fit tightly in an opening 28 in the square tubular leg 14.

Amended claim 11 clearly recites the step of “placing a first side wall of the mount tube against an external surface of the base frame.” Hilborn discloses a socket 12 which mounts within the opening 28 of a leg 14. There is simply no teaching or suggestion in Hilborn of placing a first side wall of a mounting tube against an external surface of a base frame. As stated by the Examiner, Carlson “is relied upon merely to show that it is known in the art to provide welds 13.” Since the cited references fail to teach or suggest the step of placing a first side wall of the mounting tube against an external surface of the base frame, it is respectfully submitted that claim 11 is in condition for allowance.

Furthermore, there is no teaching or suggestion in either Hilborn or Carlson of welding the mounting tube to the base frame with first and second welds located at opposite ends of the first side wall as recited in claim 11. More particularly, Carlson discloses a cylindrical caster socket 12 which is welded to the open end 10 of the leg of a chair base. There is simply no teaching or suggestion in either of the references of providing first and second welds located at opposite ends of a first side wall of a mounting tube having four side walls configured to provide a substantially cross-sectional shape. For this additional reason, it is respectfully submitted that claim 11 is allowable over the prior art.

In light of the failure of the prior art references to clearly provide any hint or suggestion of the elements now clearly recited in amended claim 11, it is respectfully submitted that claim 11, and the claims dependent therefrom, are in proper condition for allowance.

Claims 16-20 were rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over Hall in view of Carlson.

Initially, the applicant wishes to respectfully point out the Examiner's inconsistent characterization of the structure in the Hall patent. More particularly, in the above-identified rejection of claims 1, 2, and 8, the Examiner cited the structure of Hall as "rectangular mounting tubes 40" and "rectangular sleeve 54." Now, in the rejection of claims 16-20, the Examiner cites the structure of Hall as "mounting tube 44" and "sleeve 40". Regardless of the Examiner's inconsistent characterization of the elements recited in Hall, the Examiner has failed to satisfy the Patent and Trademark Office burden of establishing obviousness with respect to claims 16-20.

Amended claim 16 requires a spindle received in a lumen, the spindle having a portion which has a substantially rectangular cross-sectional shape received in the lumen and a portion which has a substantially round cross-sectional shape. Hall discloses an extension 54 having only a single rectangular cross-sectional shape. As acknowledged by the Examiner, Carlson "is relied upon merely to show that it is known in the art to provide welds 13." Neither of these references provide any teaching or suggestion of providing a spindle having a portion which has a substantially rectangular cross-sectional shape received in the lumen and a portion which has a substantially round cross-sectional shape. As such, it is respectfully submitted that claim 16 is properly allowable.

Additionally, neither Hall nor Carlson provide any hint or suggestion of placing a first side wall of mounting tube against the base frame, either alone or in combination with welding the mounting tube to the base frame with first and second welds located at opposite ends of the first side wall. For this further reason, it is respectfully submitted that claim 16 is properly allowable.

In light of the failure of the prior art references to clearly disclose, much less provide any hint or suggestion of the elements now clearly recited in amended claim 16, it is

respectfully submitted that claim 16, and the claims dependent therefrom, are in proper condition for allowance.

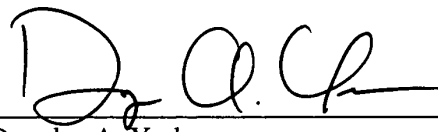
The applicants gratefully acknowledge the Examiner's indication that claims 7 and 12 contain allowable subject matter. Accordingly, claims 7 and 12 have been rewritten into independent form to recite all of the limitations of their respective base claims and any intervening claims. It is therefore believed that claims 7 and 12 are in condition for allowance.

In view of the foregoing, it is respectfully submitted that all of the solicited claims are in condition for allowance. Such action is respectfully requested.

The Examiner's kind attention is directed to the Petition for Extension of Time filed concurrently herewith. If necessary, applicants request that this response be considered a request for an extension of time appropriate for the response to be timely filed. Applicants request that any required fees needed beyond those submitted with this Amendment be charged to the account of Bose McKinney & Evans, Deposit Account Number 02-3223.

The Examiner is invited to contact the undersigned at the telephone number provided below should any question or comment arise during reconsideration of this matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. A. Yerkson', written over a horizontal line.

Douglas A. Yerkson
Registration No. 39,882

Indianapolis, Indiana 46204
(317) 684-5000
422251

APPENDIX A

IN THE CLAIMS

Kindly substitute the following amended claims:

1. (Amended) A patient support apparatus comprising:

a base frame,

a patient support coupled to the base frame,

a plurality of casters each having a sleeve, and

a plurality of caster mounting tubes, each mounting tube including a plurality

external what?

of external side walls each having an interior surface and an exterior surface, the interior surface being configured to receive the sleeve of a caster, [a] the plurality of external side walls including a generally planar first external side wall, the exterior surface of the first external side wall abutting the base frame, the mounting tube being connected to the base frame by welds located adjacent the first external side wall.

immediately adjacent

7. (Amended) [The apparatus of claim 1,] A patient support apparatus comprising:

a base frame,

a patient support coupled to the base frame,

a plurality of casters each having a sleeve, and

a plurality of caster mounting tubes, each mounting tube having an interior configured to receive the sleeve of a caster, a plurality of external side walls including a generally planar first external side wall abutting the base frame, the mounting tube being connected to the base frame by welds located adjacent the first external side wall, wherein the plurality of casters each include a set screw to orient the caster and the caster mounting tubes are each formed to include a notch configured to receive one of the set screws.

11. (Amended) A method for attaching a caster having a cylindrical sleeve to a base frame of a bed, the method comprising the steps of:

providing a caster having a cylindrical sleeve, a mounting tube having four side walls configured to provide a substantially rectangular cross-sectional shape, and a base frame of a bed;

forming an interior opening through the mounting tube having a generally round cross-sectional shape to receive the cylindrical sleeve of the caster therein;

placing a first side wall of the mounting tube against an external surface of the base frame;

welding the mounting tube to the base frame with [the] first and second welds located at opposite ends of the first side wall; and

installing the sleeve of the caster into the interior opening of the mounting tube.

12. (Amended) [The method of claim 11,] A method for attaching a caster having a cylindrical sleeve to a base frame of a bed, the method comprising the steps of:

providing a caster having a cylindrical sleeve, a mounting tube having four side walls configured to provide a substantially rectangular cross-sectional shape, and a base frame of a bed;

forming an interior opening through the mounting tube having a generally round cross-sectional shape to receive the cylindrical sleeve of the caster therein;

placing a first side wall of the mounting tube against the base frame;

welding the mounting tube to the base frame with first and second welds located at opposite ends of the first side wall;

installing the sleeve of the caster into the interior opening of the mounting tube; and

wherein the caster includes a set screw to orient the caster, the method further comprising the step of forming a notch in the mounting tube to receive the set screw of the caster.

15. (Amended) The method of claim 11, wherein the welding step [is performed by] includes providing a two axis welding machine

16. (Amended) A method for attaching a caster to a base frame of a bed, the method comprising the steps of:

providing a mounting tube having four side walls configured to provide a substantially rectangular cross-sectional shape;

providing a base frame of a bed;

providing a caster having a sleeve including a portion having a substantially rectangular cross-sectional shape, a lumen having a substantially rectangular cross-sectional shape, and a spindle having a portion which has a substantially rectangular cross-sectional shape received in the lumen and a portion which has a substantially round cross-sectional shape;

placing a first side wall of the mounting tube against the base frame;

welding the mounting tube to the base frame with [the] first and second welds located at opposite ends of the first side wall; and

installing the sleeve of the caster into the interior opening of the mounting tube.